Filed pursuant to Rule 433
Issuer Free Writing Prospectus dated October 22, 2010
Relating to the Preliminary Prospectus dated October 22, 2010
File No. 333-169831

## KRONOS WORLDWIDE, INC.

## FREE WRITING PROSPECTUS

This Free Writing Prospectus is being filed solely to advise you of the availability of a revised preliminary prospectus, dated October 22, 2010 (the "Updated Preliminary Prospectus") and to provide you with a hyperlink to the current version of the Registration Statement on Form S-1 (File No. 333-169831), which includes the Updated Preliminary Prospectus.

The Updated Preliminary Prospectus incorporates by reference our Quarterly Report on Form 10-Q for the quarter ended September 30, 2010. This Quarterly Report includes certain information regarding a past lawsuit and settlement to which we were not a party involving certain of our executive officers and/or directors pursuant to which shares of our common stock held by an affiliate were posted as collateral under the caption "Management's Discussion and Analysis of Financial Condition and Results of Operations—Other Matters." The Updated Preliminary Prospectus forms a part of our Registration Statement on Form S-1 (Registration No. 333-169831) to which this Free Writing Prospectus relates.

You should read carefully the Updated Preliminary Prospectus before deciding to invest in our common stock.

To review a filed copy of our current registration statement and the Updated Preliminary Prospectus, click the following link on the SEC Web site at <a href="https://www.sec.gov/Archives/edgar/data/1257640/000119312510234682/ds1a.htm">www.sec.gov/Archives/edgar/data/1257640/000119312510234682/ds1a.htm</a>

THE ISSUER HAS FILED A REGISTRATION STATEMENT (INCLUDING A PROSPECTUS) WITH THE SEC FOR THE OFFERING TO WHICH THIS COMMUNICATION RELATES. BEFORE YOU INVEST, YOU SHOULD READ THE PROSPECTUS IN THAT REGISTRATION STATEMENT AND OTHER DOCUMENTS THE ISSUER HAS FILED WITH THE SEC FOR MORE COMPLETE INFORMATION ABOUT THE ISSUER AND THIS OFFERING. YOU MAY OBTAIN THESE DOCUMENTS FOR FREE BY VISITING EDGAR ON THE SEC WEB SITE AT <a href="https://www.sec.gov">www.sec.gov</a> OR BY CLICKING ON THE LINK ABOVE. ALTERNATIVELY, THE ISSUER OR ANY UNDERWRITER PARTICIPATING IN THE OFFERING WILL ARRANGE TO SEND TO YOU THE PROSPECTUS IF YOU REQUEST IT FROM WELLS FARGO SECURITIES LLC, 375 PARK AVENUE, NEW YORK, NEW YORK 10152, ATTENTION OF EQUITY SYNDICATE; DEUTSCHE BANK SECURITIES, 60 WALL STREET, NEW YORK, NEW YORK 10005, ATTENTION OF EQUITY CAPITAL MARKETS SYNDICATE DESK; OR STEPHENS INC., 111 CENTER STREET, LITTLE ROCK, ARKANSAS 72201, ATTENTION OF EQUITY SYNDICATE.

ANY DISCLAIMERS OR OTHER NOTICES THAT MAY APPEAR BELOW OR ELSEWHERE WITHIN THIS EMAIL ARE NOT APPLICABLE TO THIS COMMUNICATION AND SHOULD BE DISREGARDED. SUCH DISCLAIMERS OR OTHER NOTICES WERE AUTOMATICALLY GENERATED AS A RESULT OF THIS COMMUNICATION BEING SENT VIA BLOOMBERG OR ANOTHER EMAIL SYSTEM.